

WHAT IS CLAIMED IS:

1. A head stack assembly for a disk drive, the head stack assembly comprising:
2 a body portion including a bore defining a pivot axis;
3 an actuator arm cantilevered from the body portion;
4 a head gimbal assembly supported at the actuator arm and including:
5 a load beam having a first end and a second end, the first end being attached to the
6 actuator arm, the load beam defining a load beam feature near the second end, at least a portion
7 of the load beam feature defining an extension that is parallel to the pivot axis and that has a
8 rectangular cross-section having a length to width aspect ratio that is greater than 1, and
9 a slider coupled to a free end of the load beam extension, and
10 a gimbal coupled to the second end of the load beam and to the slider.

11 2. The head stack assembly of Claim 1, wherein the load beam feature includes a
12 formed dimple and wherein the extension extends from the dimple.

13 3. A load beam assembly for attachment to an actuator arm in a disk drive, the disk
14 drive having a disk, the load beam assembly comprising:
15 a load beam, the load beam defining a first end and a second end, the first end being
16 attached to the actuator arm, the load beam defining a load beam feature near the second end, at
17 least a portion of the load beam feature defining an extension that extends toward the disk and
18 that has a rectangular cross-section having a length to width aspect ratio that is greater than 1.

19 4. The load beam assembly of Claim 3, wherein the load beam feature includes a
20 dimple and wherein the extension extends from the dimple.

21 5. A head gimbal assembly for attachment to an actuator arm in a disk drive, the disk
22 drive having a disk, the head gimbal assembly comprising:
23 a load beam, the load beam defining a first end and a second end, the first end being
24 attached to the actuator arm, the load beam defining a load beam feature near the second end, at
25 least a portion of the load beam feature defining an extension that extends toward the disk and

1 that has a rectangular cross-section having a length to width aspect ratio that is greater than 1;
2 a slider coupled to a free end of the load beam extension, and
3 a gimbal coupled to the second end of the load beam and to the slider.

4 6. The head gimbal assembly of Claim 5, wherein the load beam feature includes a
5 dimple and wherein the extension extends from the dimple.

6 7. A disk drive, comprising:
7 a disk having a recording surface;
8 a head stack assembly, including:

9 a body portion;
10 an actuator arm cantilevered from the body portion, and
11 a head gimbal assembly supported at the actuator arm and including:

12 a load beam the load beam defining a first end and a second end, the first
13 end being attached to the actuator arm, the load beam defining a load beam feature near the
14 second end, at least a portion of the load beam feature defining an extension that extends toward
15 the disk and that has a rectangular cross-section having a length to width aspect ratio that is
16 greater than 1;

17 a slider coupled to a free end of the load beam extension, and

18 a gimbal coupled to the second end of the load beam and to the slider.

19 8. The disk drive of Claim 7, wherein the load beam feature includes a dimple and
20 wherein the extension extends from the dimple.

21 9. A head stack assembly for a disk drive having a disk, the head stack assembly
22 comprising:

23 a body portion;

24 an actuator arm cantilevered from the body portion;

25 a head gimbal assembly supported at the actuator arm and including:

1 a load beam having a first end and a second end, the first end being attached to the
2 actuator arm;

3 a gimbal coupled to the second end of the load beam;

4 a passive spacer defining a first surface that is coupled to the gimbal and a second
5 surface that faces away from the first surface, and

6 a slider coupled to the second surface of the passive spacer.

7 10. The head stack assembly of Claim 9, wherein the first surface of the passive
8 spacer is separated from the second surface of the passive spacer by at least 0.02 mm.

9 11. The head stack assembly of Claim 9, wherein the load beam defines a dimple near
10 the second end, the passive spacer being coupled to the dimple.

11 12. A head gimbal assembly configured to be supported by an actuator arm in a disk
12 drive, the disk drive having a disk, the head gimbal assembly comprising:

13 a load beam having a first end and a second end, the first end being attached to the
14 actuator arm;

15 a gimbal coupled to the second end of the load beam;

16 a passive spacer defining a first surface that is coupled to the load beam and a second
17 surface that faces away from the first surface, and

18 a slider coupled to the second surface of the passive spacer and to the gimbal.

19 13. The head gimbal assembly of Claim 12, wherein the first surface of the passive
20 spacer is separated from the second surface of the passive spacer by at least 0.02 mm.

21 14. The head gimbal assembly of Claim 12, wherein the load beam defines a dimple
22 near the second end, the gimbal being coupled to the dimple.

23 15. A disk drive, comprising:

24 a disk having a recording surface;

25 a head stack assembly, including:

1 a body portion;
2 an actuator arm cantilevered from the body portion, and
3 a head gimbal assembly supported at the actuator arm and including:
4 a load beam having a first end and a second end, the first end being
5 attached to the actuator arm;
6 a gimbal coupled to the second end of the load beam;
7 a passive spacer defining a first surface that is coupled to the load beam
8 and a second surface that faces away from the first surface, and
9 a slider coupled to the second surface of the passive spacer and to the
10 gimbal.
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12 16. The disk drive of Claim 15, wherein the first surface of the passive spacer is
13 separated from the second surface of the passive spacer by at least 0.02 mm.
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15 17. The disk drive of Claim 16, wherein a dimension of the passive spacer between
16 the first surface of the passive spacer and the second surface of the passive spacer is selected to
17 be greater than about 0.02 mm.
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19 18. The disk drive of Claim 15, wherein the load beam defines a dimple near the
20 second end, the gimbal being coupled to the dimple.
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